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ABSTRACT

A study was conducted to explore the effects of structured dialogue journal writing on the study habits and attitudes of underprepared community college students. The journal included weekly sheets on which students noted positive and negative aspects of their academic work during the preceding week, recorded upcoming assignments, and replied to the instructor's comments and feedback on previous sheets. The students and instructor engaged in a weekly dialogue to help students develop more awareness of their academic behavior and its consequences and of alternatives with which they might better achieve their academic goals. The journals of 38 students enrolled in a non-credit study skills/orientation course for students with basic skills deficiencies were analyzed in terms of the total number of words and questions in all teacher and student entries, the number of evaluatives in student entries, the functions for which students and teachers used the journals, and the topics addressed by teachers and students. In addition, a survey of study habits and attitudes was conducted at the beginning and end of the term, and 12 journals were selected at random to describe the nature of the interaction between the student and teacher. Study findings included the following: (1) students generally asked very few questions; (2) without exception, students wrote more than their teachers; and (3) teachers' use of broad and consistent praise, lengthy responses, and teachers' willingness to respond to personal topics seemed to effectively promote productive dialogues. Included are 45 references. (EJV)

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EFFECTS OF DIALOGUE JOURNAL WRITING ON STUDY HABITS
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by
Kathleen Schatzberg-Smith

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Author Notes

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Reprints of this article may be obtained from the author at Rockland Community College, 145 College Rd., Suffern, NY 10901.

ABSTRACT

EFFECTS OF DIALOGUE JOURNAL WRITING ON STUDY HABITS AND ATTITUDES OF UNDERPREPARED COLLEGE STUDENTS

Kathleen Schatzberg-Smith

Hofstra University, 1988

To explore the effects of structured dialogue journal writing on self-reported study habits and attitudes of underprepared community college students, weekly written dialogue journals were exchanged between students and their teacher. Conceptually, schema theory suggests that poorly prepared college students need procedural schemata for academic tasks; metacognition implies their need to monitor and regulate their academic strategy; cognitive modifiability postulates that intellectual processes are meliorable; writing to learn supports using journals to promote students' understanding of their study strategies; and dialectic learning theory views dialogue between inexperienced learners and more skilled adults as interaction that enhances cognitive development.

Prior researchers on dialogue journal writing traced the development of language and reasoning abilities in elementary students, but few researchers focussed on college learners, none on underprepared students. Thus, three variables (number of words, questions, and evaluatives) in students' structured dialogue journal writing were hypothesized to

significantly account for study habits and attitudes. Five descriptive research questions were also explored on functions, topics, and interactions in the structured dialogue journals.

A self-report inventory of study habits and attitudes was given before and after a 15-week period during which 38 students exchanged weekly written dialogue with one of two instructors. The pretest accounted for 70% of the variance in the posttest, but multiple regression analysis showed that the three variables in student journal writing accounted for another 13% of the variance ($p < .001$). The hypothesis was therefore supported. A significant and meaningful correlation ($r = .80$, $p < .001$) was also observed between student volume and teacher volume of writing. The researcher concluded that structured dialogue journals appear promising for improvement of study habits and attitudes in underprepared students at the community college in the study. Future researchers using larger samples from various populations should study (a) other variables in structured dialogue journal writing, including those identified in the descriptive portions of the study and (b) relationships between teacher variables and student variables in the journal writing.

EFFECTS OF DIALOGUE JOURNAL WRITING ON STUDY HABITS
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Background

Historical Perspectives

Since the late nineteenth century, land grant universities have granted entrance to all high school graduates, but the common occurrence was that half or more of such entering classes would perform so poorly as to lose eligibility for return in the sophomore year. In this way, students who lacked the traditional academic skills demanded by more selective institutions were effectively eliminated. Faculty in these colleges often saw themselves as "gatekeepers" whose duty it was to dismiss those unfit for a college education. In the 1960s, however, community colleges and other public colleges adopted open enrollment policies with the egalitarian goal of making higher education accessible to all who desired it (Cohen & Brawer, 1982). With the so-called "open door" came recognition of a concomitant obligation to help underprepared students achieve college level skills. Two decades ago, Roueche (1968) asked whether community colleges would rise to this challenge with sound programs or simply provide custody of such students until the "revolving door" resulted in their exit after a semester or two.

Efforts to assimilate poorly prepared students were impeded by academicians who saw as specious the goal of college for all, the open door itself as a culprit that led to poor standards (Rouche & Kirk, pp. 1-5). Some colleges developed model programs, intent on redressing "an educational system that has failed in countless ways and for countless reasons to educate all its youth" (Shaughnessy, 1977, p. 291), but

Rouche and Kirk concluded that in the main, community colleges were not adequately meeting the needs of underprepared students (1973, p. 80).

Initially, open door colleges experienced huge enrollment gains; however, as the 1970s waned, the swell of students subsided. Lower birth rates and the maturing of the postwar baby boom meant fewer high school graduates. Colleges soon realized that in part, institutional survival depended on retaining more underprepared students. It was, as one administrator put it, "one of those rare and fortunate occasions when the right thing to do was also the economically smart thing to do" (Gallagher, 1986). Thus, improving the academic skills of underprepared students became a major focus in colleges across the nation.

Typically, programs for such students offered basic skills courses and support services such as counseling and tutoring (Maxwell, 1981). Often, though, it seemed that the very students who most needed support services did not avail themselves of it. Likewise, while those in basic courses for reading, study skills, writing, and computation usually made striking gains (Kulik, Kulik, & Schwalb, 1983), dropout and absentee rates in such courses were high. The question was how to help students for whom lack of basic skills was only the first, most obvious problem, students apparently unaware of how to behave in academe, incapable of assessing their own needs, unable to predict the likelihood of their own success, and consequently, indifferent to services that could help.

The Structured Dialogue Journal

The dialogue journal was seen as a possible way to address these more intractable problems of the underprepared student. The first study on the

dialogue journal defined the process as "conversation in writing carried on over an extended length of time, with each partner having equal and frequent . . . turns" (Staton, Shuy, & Kreeft, 1982a, p. 11). These journals, exchanged daily for nine months between sixth-graders and their teacher, were aimed at teacher objectives like use of writing as a communicative tool, resolution of classroom issues, and assessment of student needs. In this study, the dialogue journal was modified to elicit from underprepared community college students reports on their academic experiences. The structure of the journal included weekly sheets with sections for students to (a) note the positive and negative events in their academic work during the preceding week and (b) record upcoming assignments. In reply, the instructor wrote questions and feedback designed to help students in their efforts to achieve success in college. After the first week, students used another section of the weekly sheet to reply to their instructor's comments.

In short, students and instructor engaged in a weekly dialogue to help students develop more awareness of their academic behavior and its consequences and to discuss with them alternatives by which they might better achieve academic goals. The problem to which this study was addressed, then, was discovery of how a structured written dialogue between academically weak students and their instructor might affect the students' academic attitudes and habits.

Assumptions

The idea that structured dialogue journals might promote academic success for underprepared students is rooted in theoretical premises from:

(1) schema theory, (2) metacognition, (3) cognitive modifiability, (4) writing as a mode of learning, and (5) dialectic learning theory. The relevance of each of these to the processes involved in structured dialogue journal writing is summarized in this section.

Bartlett (1932) defined schemata as dynamic, constructive processes by which people perceive and remember information. Later theorists used terms like "scaffolding" (Anderson, Spiro, & Anderson, 1978), and "building blocks" (Rumelhart, 1980), metaphors implying that schemata were relatively concrete structures. Iran-Nejad (1980) criticized these accounts, reviving Bartlett's view of cognition as more a functional, fluid process than a static product. In fact, both views can enhance our understanding of cognition. Schema theory can account for the fact that we do collect knowledge about the world, apparently accumulating it in bundles that could be seen as networks of interconnected data. At the same time, we continually engage in processes by which we assimilate and accommodate new information (Piaget, 1950/69; 1970). These processes not only provide ways of understanding new information, but also enable us to organize data into schematic routines which we use to interact with the world around us.

Viewing the problems of underprepared college students through the prism of schema theory leads to several process-oriented questions. How can students' procedural schemata for academic tasks be activated? How can impoverished schemata be enriched? How can schemata be generated if they do not exist at all? Underprepared students often use a repertoire of behaviors which saw them through high school with a minimum of damage to self-esteem; the same procedural schemata, however, will not permit success

in college. How can we help students develop a new repertoire (i.e., new schemata) if they are committed to the less effective ones?

Unless students can master the processes by which they undertake academic work, success in college will not be forthcoming. In Piaget's terms, they must assimilate new demands with existing schemata; if that does not suffice, they must accommodate new tasks by modifying existing schemata or creating new ones. Structured dialogue journals were thus conceived as a way for students to interact with a caring instructor who would help them evaluate the effectiveness of their academic procedures, assess the relative merit of alternative methods, and modify or create schemata that might afford greater success.

Metacognition refers broadly to awareness of and control over one's own cognitive processes. It permits assessment of mental functions and adjustment when necessary to facilitate comprehension, learning, problem solving, task completion, and so on. Recently defined by Flavell (1976; 1979) and Brown (1977; 1978), metacognitive theory actually originated in Vygotsky's two-stage theory: first, acquisition of knowledge, and then second, gradually increasing conscious control over that knowledge (1934/62). Among other deficiencies, poorly prepared college students lack the ability to assess their own cognitive operations. Often, they appear unaware of alternatives open to them, unaware even of the processes by which they choose to take (or not take) some action in their pursuit of academic success. The structured dialogue journal may help them develop increased awareness, enhanced ability to monitor and regulate their

academic strategies, and ultimately, acquire a place in the academic culture.

In this century, psychologists tried to validate a construct of human intelligence as basically immutable, even though psychometricians cannot agree on what it is that intelligence tests measure (Resnick, 1976). Preferable to normative intelligence testing might be criterion- referenced diagnostic tests leading to "intervention designed to enhance the level of cognitive functioning" (Resnick, 1976, p. 9). Feuerstein, Rand, Hoffman, and Miller (1980) asserted the modifiability of cognitive functioning and developed instructional and evaluative instruments for use in just such an enterprise. In using these devices, a teacher, or "mediator," frames the experience for the learner, infuses intentions or meanings into the learning material, and regulates the behavior of the learner so that success and progress are virtually inevitable. In so doing, the mediator also transmits cultural values and attitudes. The premise of this study is that such students can achieve more effective levels of intellectual functioning. An instructor using a structured dialogue journal assumes the role of the mediator as described by the Feuerstein group, framing and assigning meaning to students' reported experiences and perceptions. The instructor transmits the cultural attitudes and values of academe and students become better able to comprehend and meet the demands of the academic environment.

A dialectic learning process is an interaction which results in change. In its simplest conceptual form, it is an encounter between the status quo (thesis) and an opposing idea (antithesis); the resulting

interaction gives birth to a synthesis, an altogether new construction. This synthesis becomes the new thesis, destined to meet its opposition, a new antithesis, and the two engage in yet another interaction. And so the process continues, from one generation of ideas to another, from one historical era to another. That this philosophical idea fertilized, at least in part, the Russian Revolution makes it no accident that a young Russian psychologist, coming of professional age in the 1920's, should happen to apply the dialectic to the learning process. As judicious as it may have been for Vygotsky to see cognitive development as dialectic, the theory nonetheless offers considerable explanatory power.

Vygotsky (1934/1962; 1930-35/1978) saw social interaction and language as instruments by which people interact with the environment. The interaction is dialectic, a dynamic that results in continuous change in both people and their surroundings. In youth, the changes affect cognitive development, and adults play a particularly important role, providing dialogue and mediation which foster development. The structured dialogue journal was meant to promote just such a dialectic process. Engaging in written dialogue with the instructor, students are hypothesized to move from naive or primitive use of study tactics toward mastery and internalization of effective academic operations.

The instructor's dialogic responses model the language, values, and strategies of academe, a culture initially foreign to the underprepared student. Entering into the dialogue, students test the same language, values, and strategies for adoption to their own repertoire. Modeling strategic problem solving or posing questions to elicit from students

and goals. The process should help them internalizing the understanding that "humans personally influence their relations with the environment and through that environment personally change their behavior, subjugating it to their control" (Vygotsky, 1930-35/1978, p. 51).

That the dialogue is written, not oral, also nurtures the dialectic process. It is not that oral dialogue could not be valuable, but that written dialogue causes both parties to reflect on and re-examine ideas in a way that usually is not a part of more spontaneous oral dialogue. To Vygotsky, written language was as much a tool as oral language in mental development; thus, theories on writing as a mode of learning are closely related to dialectic theory.

Strong (1983) articulated the reason for asking students to write: "Writing is a means--perhaps the best means--to make knowledge personal, connected, accessible" (p. 36). A number of writing theorists have made the connection between writing and learning more explicit, work that originated with investigations of writing as a process, for in trying to discover what writers do as they write, researchers established that the writing process resulted in by-products, chief among them clarity in understanding what one knew, or, in a word, learning. Writing supports learning because it is continuously reinforcing, with visual, cognitive, and kinesthetic processes all involved, the learning further reinforced by the concrete record that it produces (Emig, 1977).

Journal writing for learning study skills was described by several practitioners (Crowley, 1984; Frager & Malena, 1986; Hoffman, 1983).

Langer (1986) studied the relative effects on topic knowledge of three

textbook study methods that used writing: answering study questions, taking notes on the text, and writing essays. The latter produced the greatest gains in topic knowledge, apparently because study questions and notetaking led students to reproduce content as given in the text, while composing essays led them to reconstruct content, focus on larger issues, and integrate new ideas with previously learned material.

In short, writing involves transactions that activate, instantiate, and refine schemata. Writers "not only enter into the act, but change during it" (Shanklin, 1981, p. 138). Structured dialogue journals are therefore proposed as media by which students can engage in transactions that will nurture dialectic processes enabling students to better understand their own academic behavior, the demands of college, and the mechanics of study strategies that lead to academic success.

Relevant Research

The literature prior to 1980 revealed much theoretical support but little empirical evidence either to defend or refute the use of journals with students. Even definitions of journal writing were lacking since journal formats can be as varied as the range of educators who use them. Much of the literature was (and continues to be) anecdotal. Available research addressed such a variety of journal types that conclusions were difficult to draw; many of these studies lacked theoretical support, used weak research designs, or were inadequately reported. In the early 1980s, however, two events changed the character of research on journal writing: first, educational researchers began using ethnographic techniques; and

second, the dialogue journal became the first concretely defined journal format to be the object of a number of studies.

Goodkin (1982) and Lowenstein (1982) both conducted ethnographic inquiries on journal writing processes. Lowenstein's findings stressed temporal stages in personal or academic growth achieved through journal writing by the six individuals she interviewed in depth. Goodkin, on the other hand, stressed the transactional and constructive processes through which journal writing contributes to cognitive development. She found that journal writing, especially if shared with others, could link learning about oneself and learning about the world.

The dialogue journal is a unique form in which two parties share ownership of the journal, exchanging the journal regularly in a written conversation. The seminal research on this journal form was conducted by Staton, Shuy, and Kreeft (1982a); the group also produced 12 research papers (1982b) on specific aspects of dialogue journal writing. Data in these studies included dialogue journals written daily over a 9-month period by 26 sixth-graders with their teacher. Although they worked with elementary students, they established a definition of dialogue journals and a foundation for later studies including the modification called the structured dialogue journal.

The dialogue journal is continuous, cumulative, and interactive, resulting in joint ownership. Use of it assumes certain teacher values: openness and genuineness of expression, commitment to interaction, and willingness to discuss problems. Dialogue journals are personal and embedded in a mutual context. They focus on ideas with acceptance of

variation in surface form and topics can be initiated by both student and teacher. Finally, dialogue journal writing addresses a specified audience with teacher responses in complete sentences that model good language usage (Staton et al., 1982a, pp. 21-22).

Since the landmark studies conducted by Staton, Shuy, and Kreeft, many researchers have used dialogue journals in ethnographic or case studies as one source of data. Others have explored dialogue journal writing with various populations, but aside from Meloni (1983), who studied university non-native English speakers, only one investigator (Markman, 1983) explored the use of dialogue journal writing with college-age learners.

Markman tested the effects of dialogue journals on the writing habits and performance of college juniors in a technical writing course. Five teachers used the journals in one section and taught another section as a control. For 161 students in the study, no significant differences were detected in either writing improvement or attitudes toward writing; however, the journals were exchanged just six times in 14 weeks, perhaps mitigating against detecting effects. Markman also analyzed topics in the students' writing and found that 95% related to writing, a result suggesting that students did not feel free to discuss other topics.

Two other studies, albeit with elementary students, lent support to the current research. Staton (1984) studied the development of problem solving and reasoning through dialogue journal writing. Morroy (1985) identified teacher strategies that helped foster communication, noting that students may be required to write in dialogue journals, but cannot be compelled to communicate meaningfully. These two studies provided a

rationale for the teacher agenda and objectives that were assumed to promote the success of underprepared students through the structured dialogue journal.

Previous research on predicting student success in college focussed on variables not very susceptible to change, like parents' educational level, socio-economic status, intelligence test scores, and the like. By contrast, Easton and Ginsberg (1985) tried to identify behavior that would account for success and could be taught by interviewing students who were "high risk" for failure according to placement tests and high school records but who nevertheless earned outstanding grades. They found that such students used four kinds of strategies: (1) they tried consciously to increase their active involvement both in and out of the classroom; (2) they used a cycle of self-awareness, self-evaluation, and self-improvement; (3) they practiced selectivity in identifying what to study, in planning when and how to study, even in choosing friends whose academic goals and values matched their own; and (4) they exhibited high levels of goal orientation. The data suggested that the students had learned academic behaviors not previously used, further supporting use of structured dialogue journals to help underprepared community college students develop successful academic strategies.

Summary

The reading, writing, and computational abilities of underprepared students are inadequate for success with college work and the task of compensating for years of deficit is monumental. In addition to the sheer problem of basic skills, there is a much more complex issue of how students

will develop academic behaviors they have not previously used, indeed, that may be entirely outside their experience. The structured dialogue journal could provide a tool whereby the teacher, a skilled academician, might help students develop awareness of their academic behavior and its consequences, regulate their academic behavior so as to achieve desired outcomes, and obtain feedback on the results. The study reported here was aimed at testing just such a journal.

Overview of the Study

The purpose of the study was to analyze in depth the structured dialogue journals of a group of underprepared community college students to determine effects on students' perceptions of their study habits and attitudes. Review of the literature indicated that three variables in students' journal writing might be related to changes in self-reported study habits and attitudes. The students who (a) wrote more, (b) asked more questions, and (c) made more evaluative statements were presumed to be more engaged in acquiring: procedural schemata for academic tasks; self-monitoring and self-regulating skills; and cognitive development deriving from the activity of writing and the dialogic interaction with the instructor. The three variables were tested with one empirical hypothesis. Supplementary analyses were also conducted to explore two variables in the instructors' journal writing (number of words and questions written) and their possible relation to student variables. Finally, since the structured dialogue journal was a newly modified form of the dialogue journal, definition of it was sought through several descriptive research questions.

Setting and Subjects

The study was conducted at a small community college in a rural area about 100 miles from a major metropolitan center. Only 30% of its full-time students reside in the county, however, while over 65% come from the nearby city and its surrounding suburban counties. Aside from the unique blend of rural, urban, and suburban students, it is otherwise a typical community college, with a somewhat larger proportion of minority students than national population averages and just over half of the students receiving some form of financial aid. All new students are given basic skills placement tests and, if test results indicate a need, are required to enroll in non-credit courses for reading, writing, or arithmetic. Students placed in two or more such courses are also required to enroll in "Academic Development," a course which meets one hour per week and includes study skills and orientation components.

The structured dialogue journal was originally designed for use in this course and was used for three years prior to this study, years that afforded pilot testing of the procedures and structure of the journal. The first 15 minutes of each class meeting was devoted to the journals: students read their instructor's comments from the preceding week and completed the next Weekly Progress Sheet. The instructor then collected the journals to read and write responses prior to the next class.

Some 55 students were placed in Academic Development in the fall term that this study was conducted; 15 of these stopped attending some or all of their classes or withdrew from school during the semester and 2 others

declined to sign a waiver allowing use of their journals for research. Thus, 38 students participated in the study.

Instruments

Two instruments were used to collect the data. The weekly sheets in the structured dialogue journal were one source of data. All teacher and student entries for the semester were tabulated to obtain total number of words and questions, and for students, evaluatives. The second source of data, the Survey of Study Habits and Attitudes (SSHA), Form C, College level (Brown & Holtzman, 1967) was administered at the beginning and end of the 15-week semester. Reliability coefficients were estimated for both the pretest and posttest using Cronbach's (1951) alpha model which is the default option of the SPSS-X statistical package (SPSS-X, Inc., 1986). The alpha coefficients, measures of reliability based on internal consistency, were excellent, .93 for the pretest and .95 for the posttest.

Hypothesis

The effects of three independent variables (words, questions, and evaluatives) on a single dependent variable (study habits and attitudes) were tested with the following hypothesis:

Question asking, evaluating, and total words written by students will account for increased variance in posttest scores after controlling for the effects of the pretest.

A multiple regression equation was constructed with the posttest SSHA as the dependent variable. The pretest SSHA was entered into the equation first to determine the amount of posttest variance accounted for by the pretest. Finally, the three independent variables were forced

simultaneously into the regression equation. These calculations were done with the standard regression program of the SPSS-X statistical package (SPSS-X, Inc., 1986).

Supplementary Analyses

As the data were examined, two features of the instructors' writing stood out: first, differences in volume of writing, both between the two teachers and from journal to journal; and second, a high frequency of question asking by instructors. The number of subjects precluded multivariate analysis with five independent variables, so supplementary analyses focussed on the intercorrelations among teacher variables and student variables as a means of identifying avenues for future research. A correlation matrix and additional descriptive statistics were obtained for the entire sample ($N = 38$) as well as for the two sub-samples of students taught by each of the two instructors ($n = 23$ and $n = 15$). These were calculated using Pearson Correlation (SPSS-X, Inc., 1986).

Descriptive research questions.

Previous researchers had analyzed dialogue journals for both topic and function and, in addition, had emphasized the interactive nature of the activity. None, however, had examined the use of dialogue journals to influence the study habits and attitudes of underprepared community college students. The current study incorporated a modification of the dialogue journal, an overlaid structure designed to direct students' attention to academic issues. Therefore, descriptive research questions were used to explore topics and functions in both student and teacher entries as well as

the nature of the student-teacher interactions as they occurred across the entire semester of the study.

Using function and topic categories identified in previous research as a starting point, both student and teacher entries were sampled to develop codes. These codes were then used to classify and tabulate the frequency of functions and topics in all of the entries. Finally, 12 journals were selected at random and examined in detail to describe the nature of the interaction between the student and the teacher.

Findings

Multiple regression analysis

The regression equation used to test the hypothesis incorporated five variables: the SSHA pretest score, used to control for variance in academic behavior and beliefs with which students began the semester; the SSHA posttest score, the dependent variable; and three independent variables, total words, total questions, and total evaluatives written by students. Table 1 displays the means (M) and standard deviations (SD) for these variables. The means journal writing variables (words, questions, and evaluatives) represent the average written per student on all Weekly Progress Sheets during the semester of the study. The means on the pretest and posttest represent the average score on a five-point range with five the most positive response and one the most negative.

Insert Table 1 about here

Great variability is evident in words, questions, and evaluatives, but far less in pretest and posttest scores. As the mean for words indicates, students averaged more than 700 words on the Weekly Progress Sheets of their journals, but the standard deviation for words was over 400, supporting what had been observed in the pilot studies, that some students wrote very little while others wrote copiously. The low mean for questions reflects the fact that only 12 students wrote questions in their journals. By contrast, 34 of the 38 wrote at least one evaluative during the 14 weeks, but as the standard deviation indicates, those who wrote evaluatives spanned a wide range, from only one to more than 20.

The correlation matrix of the variables is shown in Table 2. This matrix provides basic understanding of the relative significance and meaningfulness of the interrelationships among the variables. The largest significant correlation obtains between the pretest and the posttest ($r = .84, p < .001$); that is, students' initial scores for study habits and attitudes was the single best predictor of scores 15 weeks later. Significant correlations among the independent variables were entirely expected: the questions and evaluatives variables are in effect embedded within the words variable. These correlations, in fact, form part of the rationale for the use of multiple regression.

Insert Table 2 about here

In the multiple regression equation, the pretest was entered first to control for the variability among students at the beginning of the study.

The three independent variables were then entered simultaneously into the equation to test their combined effect on the SSHA posttest, the dependent variable. Table 3 summarizes the regression analysis and its associated F-test.

Insert Table 3 about here

With a multiple R of .838, the pretest accounted for 70.2% of the variance in the posttest. The three independent variables together accounted for an additional 13.4% of the variance in the dependent measure. An F-test of the R² increment for the three independent variables together was significant ($p < .001$) with 3 and 33 degrees of freedom. The hypothesis was therefore supported.

Supplementary Analyses

The raw data revealed points not apparent from multiple regression analysis. The descriptive statistics in Table 1 obscure differences for the students in each teacher's groups and student differences seemed to be paralleled by differences in the teachers' writing. As a preliminary exploration of the relationships between student and teacher variables, a correlation matrix was calculated combining all the student variables with two teacher variables. Table 4 displays this matrix, highlighting just the correlations of student variables with teacher variables.

Insert Table 4 about here

The significant and meaningful correlation between teacher words and teacher questions ($r = .66, p < .001$) would be expected, as it was with the student variables, since the questions variable is embedded within the words variable. Of greater interest are the significant and marginally meaningful correlations between teacher questions and two of the student variables, student evaluatives ($r = .29, p < .05$) and student words ($r = .35, p < .05$), as well as between teacher words and the SSHA posttest ($r = .35, p < .05$). The most important relationships, however, appear to involve teachers' volume of writing and students' production of both volume in general and evaluatives in particular. A highly significant and meaningful correlation obtains between teacher words and students evaluatives ($r = .70, p < .001$) and an even more meaningful correlation is found between teacher words and student words ($r = .80, p < .001$).

These correlations suggest important relationships between student and teacher variables. The sample size in this study would not permit multivariate analyses with five independent variables; however, the correlations point strongly to directions for future research in the effort to account for more of the posttest variance.

Descriptive Findings

Functions for which students used the journals. A total of 14 different functions were observed, some of these represented groupings of similar categories. Given the structure of the journal, it was not surprising that in over half of the functional observations, students used their entries to report academic experiences (25%), to answer teacher questions (12%), to list upcoming assignments (11%), and to report their

own academic behavior (8%). Somewhat less expected was that about one-quarter of the functional observations were instances of students using their entries to express emotions (11%), to give opinions or complain (9%), and to report personal experience (6%). Two of the independent variables in the multiple regression were functions: evaluating represented just 8% of the functional observations, and questioning less than 1%.

Functions for which instructors used journals. Less diversity was apparent in the instructors' functional uses of journal entries, not a surprising outcome since the instructors had agreed in advance on an agenda designed to bring about specified student outcomes. Well over half of the time, the instructors used their entries to ask questions (32%) and to praise, affirm, or encourage (24%). The teachers had agreed to be supportive and to ask questions allowing students to make their own decisions rather than make prescriptive statements; thus an unexpected finding was that in over a quarter of the cases, instructors used their entries to suggest, advise, or give information (16%) and to give opinions or complain (11%).

Topics addressed by students in their journal writing. Academic topics accounted for 85% of the total in students' journal writing. Classes and assignments accounted for over half of these, grades and academic strategies for another one-third. Tutors and tutoring, the student her/himself, and instructors together accounted for much smaller proportions. The preponderance of academic topics no doubt reflect not only the structure of the dialogue journal but also the direction of the teacher entries in the journal. Nevertheless, it is interesting to note

that almost 15% of the topics raised by students were personal, and that these topics represented a wide range of concerns.

Topics addressed by instructors in their journal writing. Even more of the instructors' entries addressed academic topics, over 90%. When instructors did speak of non-academic topics, it was almost always to acknowledge a personal topic raised by a student, rather than to discuss topics of personal interest to the instructor. In general, the academic topics discussed by the instructors was the same as those discussed by the students, a congruence not observed in the functions used by teachers and students.

Interactions. Semester-long interactions were observed by close inspection of 12 randomly selected journals. The uniqueness of the dialogue in each student-instructor pair was confirmed, but some general observations could be made. Both instructors appeared to be affected by the "match" between their temperament and style and the student's. At times, the match afforded interactions characterized by mutual warmth, respect, and admiration; at other times, interactions were more distant. It appeared that when the teacher elaborated more, the student did too. Throughout their dialogues, both teachers appeared driven by the goal of providing praise and affirmation to boost students' self-esteem. Both teachers asked many questions, at their best, questions that probed and encouraged students to elaborate their thinking about their study methods, increase their self-awareness, and refine their decision-making and problem-solving processes. Less effective were questions with an obvious

"right" answer; these did not ask what a student thought so much as they asked that the student agree with the instructor.

Summary of descriptive findings. These brief discussions of the descriptive part of the investigation cannot convey the richness which is evident when examining the dialogues in depth. For quotations that convey the flavor of the dialogues along with detailed discussion of the descriptive findings, see the dissertation upon which this study is based (Schatzberg-Smith, 1988). Perhaps the most important point to make is that even with instructor as a constant, great individual variation was observed. Some students raised personal issues regularly, others not at all. Some responded to questions with detailed self-analysis, others answered perfunctorily, and still others ignored the instructor's questions. The individual variation in the dialogues is at once the marvel and the mystery of the process.

Discussion

The results of this study must be viewed with several limitations in mind. First, the number of students in the study was much smaller than had originally been planned. This was due to a number of changes in enrollment patterns and testing procedures and instruments at the community college where the study took place. The net effect of these changes may have been an academically weaker group of students than in previous years. Second, one of the two teachers was the researcher herself, a fact which may have, in part, accounted for some of the group and teacher differences in variables. Moreover, the time of day that the two instructors' sections were scheduled may have been related to both attendance and the ability

level of the students, factors which in turn may also have affected group and teacher differences in variables. Third, experiences other than the dialogue journal writing certainly affected the students' growth, and in the context of these students' educational lives, these experiences cannot realistically or conscionably be controlled. These included such factors as instruction in other courses; interaction with other instructors, tutors, peers, counselors, and others; and general maturation and socialization processes. Finally, the college itself was unique in its proportions of rural, urban, and suburban students. In spite of these delimitations, a number of tentative conclusions can be drawn.

The results of the regression analysis showed that at least three variables in students' writing in the structured dialogue journal accounted for a substantial and significant proportion of the variance in students' self-reported study habits and attitudes. The inference to be drawn is that the structured dialogue journal is a viable tool for helping underprepared community college students develop the procedural schemata and metacognitive strategies fundamental to success in college. The results may not be generalized, however, beyond community colleges of this type. Nonetheless, the findings warrant considerable optimism for the potential of this instrument.

The literature on writing as a mode of learning suggested that writing is a transaction in which knowledge is made more useful because it is made accessible and personal (Strong, 1983, p. 36). Underprepared college students are usually exposed to instruction on study skills. Teachers may assign reading, may model the skills, may require students to practice

them, and may test the student's understanding of them. Typically, such courses will also include discussions of attitudes that influence the student's implementation of study skills, issues such as goal setting and self-assessment, delay avoidance patterns, attitudes toward teachers and education in general, and relationships between the student's affective postures and their study behavior. Such discussions and other instructional activities may or may not be of immediate concern or value to the student.

In the structured dialogue journals of this study, however, the student had the opportunity to discuss with a caring and knowledgeable teacher the application of a given study practice to the specific academic situation which that student was simultaneously trying to negotiate. The instructor helped the writer activate, instantiate, and refine procedural schemata for dealing with the situations of the moment. As Emig (1977) suggested, writing is a powerful learning device because it is continuously reinforcing. The structured dialogue journal provided a forum where students could analyze the nature of specific academic practices or postures relative to experiences they encountered and synthesize into their own repertoire the processes and ideas they found useful. The teacher's contributions to the dialogue helped them make the connections between abstract concepts and concrete experiences.

Murray called writing a conversation in which the two selves collaborate (1982, p. 140). Underprepared college students generally find writing laborious and may never have experienced it as the problem solving vehicle it can be. Through written dialogue, students engaged in a

scenario described by Murray: "a problem is spotted, discussed, defined; solutions are proposed, rejected, suggested, attempted, tested, discarded, accepted" (p. 140). Experiencing writing in this way will not only address the dilemmas facing students as they begin to negotiate access to academe but also demonstrate the power of writing and deliver a tool for problem solving that they can later use independently. Quite simply, the results of this study suggested that, at least for the students in this sample, these processes and outcomes become accessible in direct proportion to the amount of writing they do.

In the dialogues of the students in this sample, the incidence of question asking was very low, so low that no conclusions can be drawn about the extent to which question asking by students may influence their improvement in study habits and attitudes. Question asking by students is a component of the "involvement" identified by Easton and Ginsberg (1985) as critical for the success of underprepared college students. Seen as an element of hypothesis formation, question asking promotes schema development (Rumelhart, 1980). Question asking also seems important in maintenance of genuine dialogue, the dialogue with skilled adults that is an essential component of cognitive development (Feuerstein et al., 1980; Vygotsky, 1930-35/1978). But does genuine dialogue occur if only the teacher asks questions?

Students have been accustomed to classrooms in which the teacher asks questions for which s/he already has the answers and students are rewarded for producing those "right" answers (Staton et al., 1982b). Dialogue journals afforded the opportunity to alter this dynamic by creating a

context in which students could ask questions. In the journals of this study, however, students asked few questions. Two reasons for this could be proposed: (a) students cannot easily adopt a stance of questioning their teacher; and (b) the structure of these particular dialogue journals may have inhibited question asking.

Initial comparisons of teacher and student writing revealed that without exception, the students wrote more than the teachers. The structure of the sheets in the journal fostered this outcome, in that three-quarters of the space is allotted for student entries. By definition, the dialogue journal is a communicative tool in which two partners take equal and frequent turns (Staton et al., 1982a, p. 11). The dialogue journal used in the current study differed from the open-ended format described by the Staton group. While both partners were free to continue their comments on the black back of each sheet (and sometimes did), the very design of the sheet implied that the student was expected to write much more than the teacher. When one considers that the teacher must respond to many students while the student need carry on only one written conversation, it seems reasonable that the teacher may need to limit the volume of her writing, or the writing might become an overwhelming burden. Nonetheless, the results observed here may have been influenced by the implication that the student was not an "equal" partner in the dialogue.

Two other issues about teacher writing were correlations showing that teachers' volume of writing and their questions were related to how much writing the students produces. The correlation did not, of course, reveal why these two variables are related. Any number of factors come to mind,

such as teacher style, students' perceptions of their teacher's interest in them, and differences in the groups of students. Most previous research of dialogue journal writing focussed on the dialogues of just one teacher with students. One exception was Markman (1983) whose study incorporated five instructors; however, she did not examine any of the characteristics of the instructors' writing. The results of this study have revealed some preliminary data indicating the importance of teacher variables in dialogue journal writing.

Implications

The present design of the structured dialogue journal may have been responsible for encouraging brevity in teacher responses as well as for inhibiting students from asking questions. Only about a fourth of each weekly page was allotted for teacher response and none of the prompts urged students to ask questions. Some possible adjustments might be including more space for teacher comments, adding a specific prompt to suggest that students ask questions, and perhaps listing all of the prompts in one space at the beginning of the student's section rather allotting a discrete section for response to each prompt. These changes would create a more open-ended format to foster continuous discourse, better communication, and more effective problem-solving. At the same, any new design should still encourage students to disclose specific information so that the teachers can frame helpful responses.

Certain teacher strategies appear to be more effective in promoting productive dialogue. For one, teachers should make broad and consistent use of praise and affirmation to display their "unconditional positive

regard" (Rogers, 1967, p. 245) for students. They should respond to students at length. The length must necessarily be balanced by the need of the teacher to respond to many students, but brief responses, in general, imply less interest in and concern for the student than do lengthier responses. Finally, teachers should respond to personal topics raised by students, and may wish to consider use of personal disclosure of their own experiences to model the thinking and behavior characteristic of those who function successfully in the academic realm.

Confirming earlier findings (Staton et al., 1982a), certain teacher characteristics appear necessary for genuine use of dialogue journals. It is clear that teachers should use the structured dialogue journal only if they are committed to the underlying premises of such a technique. Future consideration might be given to training tutors and counselors to use the dialogue journal or some modification of it. Training modules should be developed which emphasize the strategies mentioned above, the general goals of the dialogue journal, and the teacher characteristics needed to develop effective interactions.

Future Research

The present researcher used multiple regression analysis to test a single quantitative hypothesis. Otherwise, the study was exploratory and descriptive. Future investigators should expand on this both quantitatively and qualitatively. Multiple regression analyses can be planned to take into account a number of other variables, including the teacher variables and some factors identified as salient among topics and functions. Large numbers of subjects will be needed for such analyses.

Trend analysis is another quantitative method that could be used for future researchers to trace the effects of the journal over time. In the area of qualitative research, both case study and ethnography are designs which would further illuminate this process.

Since the study was limited to underprepared students at one rather unique community college, future researchers should seek to replicate these findings with other populations. The use of courses to orient new college students to their campuses is becoming a widespread practice throughout the nation. Thus, the structured dialogue journal might be studied for use with students of all ability levels and at types of colleges, as well as for use with high school students who intend to continue with post-secondary education. Finally, teacher differences revealed in this study suggest the need to design research with large enough numbers to gather information about variations in the way teachers use such journals.

Conclusion

The structured dialogue journal has been shown in this study to be an effective device for helping underprepared students at one community college achieve their goals by increasing their awareness of and control over their academic behavior. It is an extremely complex process, and perhaps the study raised more questions than it has answered. Current research in persistence of college students has shown that involvement with faculty and other staff may be the single most important factor in whether students are retained or drop out (Tinto, 1987; Halpin, 1983). Staton (1984) pointed out that dialogic encounters between students and teachers "have always been central to both academic and personal growth" (p. 523).

In the opinion of this researcher, the structured dialogue journal provides, for teachers inclined to use it, an effective and unique way to engage students in the dialogic encounters that encourage them to persist in education.

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Table 1

Descriptive Statistics for All Subjects, N=38

Variable	<u>M</u>	<u>SD</u>
Words	719.18	424.38
Questions	.50	1.08
Evaluatives	7.05	6.25
Pretest	3.50	.48
Posttest	3.65	.48

Table 2

Correlation Matrix of Student Variables Used in Regression Equation

Variables	Words	Questions	Evaluatives	Pretest	Posttest
Words	1.00				
Questions	.40**	1.00			
Evaluatives	.72***	.33*	1.00		
Pretest	.13	-.05	.04	1.00	
Posttest	.37*	.26	.34*	.84***	1.00

* $p < .05$. ** $p < .01$. *** $p < .001$

Table 3

Multiple Regression Summary Table

Step/Variable	Multiple R	R ²	R ² Change	F	F Change	F Change Significance
1. Pretest	.838	.702	.702	84.84	84.84	p < .001
2. Evaluatives						
Questions						
Words	.914	.836	.134	42.06	8.98	p < .001

Table 4

Correlation Matrix of Student and Teacher Variables

	1	2	3	4	5	6	7
1. Student Words	1.00						
2. Student Questions	---	1.00					
3. Student Evaluatives	---	---	1.00				
4. Teacher Words	.80**	.31*	.70**	1.00			
5. Teacher Questions	.35*	-.02	.29*	.66**	1.00		
6. SSHA Pretest	---	---	---	.20	-.09	1.00	
7. SSHA Posttest	---	---	---	.35*	-.13	---	1.00

Note. Correlations shown previously in Table 2 have been omitted.

* $p < .05$. ** $p < .001$